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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,595	08/18/2000	Michael Zimmer	JFH-A12898US	6641
24314	7590	04/30/2004	EXAMINER	
JANSSON, SHUPE & MUNGER, LTD 245 MAIN STREET RACINE, WI 53403			PARKER, FREDERICK JOHN	
			ART UNIT	PAPER NUMBER
			1762	
DATE MAILED: 04/30/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,595

Applicant(s)

ZIMMER ET AL.

Examiner

Frederick J. Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-41 and 43-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-41 and 43-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 112

The amendments in response to the 35 USC 112 rejections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the rejections.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 26,28-30,35,36,38 are rejected under 35 U.S.C. 102(b) as being anticipated by Baxter et al.

Baxter et al is cited for the same reasons previously discussed, which are incorporated herein. Applicants remarks were fully considered.

Applicants argue that Baxter et al uses dry toner particles, and that Baxter et al (1) doesn't disclose heating toner to a fluid state, and (2) use of fluid toner by the apparatus means. The Examiner agrees with the latter and has included this issue as a new rejection below as necessitated by Applicant's amendment. As to the first point, the Examiner notes the claims at hand never require the TONER "be heated to a fluid state". Thus the argument is not commensurate with the scope of the claims under rejection, and the argument regarding single versus coalesced toner particles is therefore irrelevant.

Applicants argument on bottom of page 6 is confusing because it refutes the Examiner's position that only a surface portion of the thermoplastic layer is heated, and then asserts the toner is only pressed "into the outer layers of thermoplastic layer 9" which are contradictory.

Applicants then deduce to achieve image sharpness the thermoplastic layer must be heated

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beyond the surface. This is not logical. If the entire thermoplastic was heated to softness, the image would be placed at the bottom, or irregularly in the soft layer, in exact contradiction to the teachings of Baxter et al, and figure 2.

Applicants also argue on top of page 7 the scheme described (apparently from column 3, but never so stated) must heat the entire thermoplastic layer through the paper base. For these embodiments or examples, this is true, but Applicants simply cannot advantageously pick and choose sections of the patent for argument but rather must consider the entire teachings. The Examiner refers the reader to column 4, 19+ (emphasis added) which teaches.....

“ Other known heating devices could be used, for example an infrared heating device on the upper side of receiving sheet 1 which **directly heats (thermoplastic) layer 9.**”

Applicants' argument is accordingly not persuasive, and the rejections are maintained.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 31-34,37,39,40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter et al in view of Rimai et al.

Baxter et al and Rimai et al are cited for the same reasons previously discussed, which are incorporated herein. Applicants remarks were fully considered.

The Examiner used Rimai et al for its teachings regarding sinterable/ fusible toner materials and not the process itself. The skilled artisan is acutely aware that a toner material is not strictly

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limited to a single process, but rather is usable in many processes. In the instant case, both references utilize a toner consisting of a thermoplastic and coloring agent. The fact that Rimai et al cites toners both in electrostatographic/ electrostatic imaging processes as well as a thermally assisted transfer process is additional evidence. The Examiner notes the claims at hand never require the TONER “be heated to a fluid state” except claim 41 which simply requires the “toner is fluid in the toner reactive state”. The argument regarding single versus coalesced toner particles is not present in claims and therefore not commensurate with scope of claims. Further, Rimai et al in fact does teach toner particles in a fluid state albeit locally: see Fig. 2 and column 6, 28-35 teach that heating (similar to Baxter et al) causes local fusion at points of contact, to “fuse” being defined by Hawley’s Condensed Chemical Dictionary” as “Of a solid, to melt, e.g. fused salt”. Thus, some degree of melting occurs to cause the grain-grain necking shown in figure 2 and since claim 41 does not require any specific degree of melting or an outcome inconsistent with the necking structures in the microstructure of figure 2, then similar microstructures involving at least some fusion/ melting would have been expected in the process of Baxter et al using the toners of Rimai et al.

Applicants argue Rimai et al “rejects use of a fluid toner”. The Examiner notes this argument is contrary to Applicants claims at hand which NEVER require a “fluid toner” and further particle toners are required by at least claims 44 and 46.

For all the reasons discussed in the previous Office Action and as above, the rejections are maintained.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter et al in view of Kuehnle et al .

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Baxter et al is cited for the same reasons previously discussed, which are incorporated herein. Applicants remarks were fully considered.

Kuehnle et al teach a similar electrophotographic method for applying toner images into a softened thermoplastic layer, where it is taught on col. 8, 62-66 to use electrostatic member 100 to form the image to be applied, the image being formed of a fluid toner described as “toner in a liquid suspension”. Since the liquid medium is ultimately evaporated off to leave the toner particle image, the end-product would have been equivalent to that of Baxter et al, and the use of a fluid toner providing the inherent advantage of being more readily applied to a surface since it is a more spreadable liquid phase, resulting in process efficiency and image quality. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of Baxter et al by incorporating the fluid toner of Kuehnle et al to provide the advantages of being more readily applied to a surface and therefore improve process efficiency.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

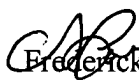
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 571/272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp